

Applicants : MARTIN, et al.  
U.S. Serial No.: 10/518,003  
Filed : December 10, 2004  
Page : 3

Amendments to the Claims:

1. (Canceled)
2. (Currently amended) A pharmaceutical composition comprising a[[n]] pharmaceutically effective amount of ~~a combination of ATP-depleting agents at concentrations~~ which deplete in combination with a pharmaceutically acceptable carrier, wherein the ATP-depleting agents synergistically deplete the ATP level of cancer cells to at least 15% or less of normal in cancer cells, and wherein at least one of the ATP-depleting agents is a mitochondrial ATP-inhibitor, a glycolytic inhibitor, a methylthioadenosine phosphorylase inhibitor or an inhibitor of [[D]]e [[N]]ovo purine synthesis with the proviso that other than 6-Methylmercaptapurine 6-methylmercaptapurine riboside is not one of said inhibitors.
3. (Currently amended) The composition of claim 2, wherein said composition produces a substantially better effect than a composition without at least one of the following ATP-depleting agents a mitochondrial ATP-inhibitor, a glycolytic inhibitor, a methylthioadenosine phosphorylase inhibitor or an inhibitor of [[D]]e [[N]]ovo purine synthesis with the proviso that other than 6-Methylmercaptapurine 6-methylmercaptapurine riboside is not one of said inhibitors.
4. (Previously presented) The composition of claim 2, further comprising a pyrimidine-depleting agent or a pyrimidine antagonist.
5. (Previously presented) The composition of claim 2,

Applicants : MARTIN, et al.  
U.S. Serial No.: 10/518,003  
Filed : December 10, 2004  
Page : 4

further comprising an anticancer agent.

6. (Original) The composition of claim 5, wherein the anticancer agent to which the cancer is sensitive.
7. (Currently amended) The composition of claim 5, wherein the anticancer agent is administered at approximately half of the maximum tolerated dose.
8. (Currently amended) The composition of claim 2, wherein the ATP-depleting agents—is comprise 6-methylmercaptapurine riboside (MMPR), 6-Aminonicotinamide (6-AN), alanosine (AL) or a combination thereof.
9. (Original) The composition of claim 8, further comprising N-(phosphonacetyl)-L-aspartic acid (PALA).
10. (Original) The composition of claim 9, further comprising 3-bromopyruvic acid.
11. (Currently amended) The composition of claim 2, wherein the ATP-depleting agents—is comprises 6-methylmercaptapurine riboside (MMPR), alanosine (AL) or a combination thereof.
12. (Original) The composition of claim 11, further comprising N-(phosphonacetyl)-L-aspartic acid (PALA).
13. (Original) The composition of claim 11, further comprising dehydroepiandrosterone (DHEA).
14. (Original) The composition of claim 11, further comprising oxythiamine (OT).
15. (Original) The composition of claim 11, further

Applicants : MARTIN, et al.  
U.S. Serial No.: 10/518,003  
Filed : December 10, 2004  
Page : 5

comprising dehydroepiandrosterone (DHEA) and oxythiamine (OT).

16. (Original) The composition of claim 11, further comprising 6-Aminonicotinamide (6-AN).

17. (Canceled)

18. (Canceled)

19. (Canceled)

20. (Canceled)

21. (Currently amended) A method for treating a cancer subject comprising administering to the subject a combination of ATP-depleting agents at concentrations which deplete the ATP level to at least 15% of normal in cancer cells wherein at least one of the ATP-depleting agents is a mitochondrial ATP-inhibitor, a glycolytic inhibitor, a methylthioadenosine phosphorylase inhibitor or an inhibitor of [[D]]de [[N]]novo purine synthesis with the proviso that ~~other~~ than ~~6-Methylmercaptopurine~~ 6-methylmercaptopurine riboside is not one of said inhibitors, wherein said composition produces a substantially better effect than a composition without at least one of the following ATP-depleting agents: a mitochondrial ATP-inhibitor, a glycolytic inhibitor, a methylthioadenosine phosphorylase inhibitor or an inhibitor of [[D]]de [[N]]novo purine synthesis with the proviso that ~~other~~ than ~~6-Methylmercaptopurine~~ 6-methylmercaptopurine riboside is not one of said inhibitors.

22-45. (Canceled)

Applicants : MARTIN, et al.  
U.S. Serial No.: 10/518,003  
Filed : December 10, 2004  
Page : 6

46. (Original) A method for treating drug-resistant cancer cells comprising contacting the said cancer with a combination of ATP-depleting agents and an anticancer agent.
47. (Original) The method of claim 46, wherein the dose of said anticancer agent is at approximately half of the maximal tolerated dose.
48. (Currently amended) The method of claim 46, wherein the ATP level is depleted to at least 15% of normal in cancer cells and at least one of the ATP-depleting agents is a mitochondrial ATP-inhibitor, a glycolytic inhibitor, a methylthioadenosine phosphorylase inhibitor or an inhibitor of [[D]]de [[N]]novo purine synthesis with the proviso that ~~ether than 6-Methylmercaptopurine 6-methylmercaptopurine riboside~~ is not one of said inhibitors.
49. (Currently amended) The method of claim 46, wherein the ATP level is depleted to at least 15% of normal in cancer cells and at least one of the ATP-depleting agents is a mitochondrial ATP-inhibitor, a glycolytic inhibitor, a methylthioadenosine phosphorylase inhibitor or an inhibitor of [[D]]de [[N]]novo purine synthesis with the proviso that ~~ether than 6-Methylmercaptopurine 6-methylmercaptopurine riboside~~ is not one of said inhibitors and said composition produces a substantially better effect than a composition without at least one of the ATP-depleting agents: a mitochondrial ATP-inhibitor, a glycolytic inhibitor, a methylthioadenosine phosphorylase inhibitor and an inhibitor of [[D]]de [[N]]novo purine

Applicants : MARTIN, et al.  
U.S. Serial No.: 10/518,003  
Filed : December 10, 2004  
Page : 7

synthesis with the proviso that ~~other than 6-~~  
Methylmercaptapurine 6-methylmercaptapurine riboside is  
not one of said inhibitors.

50-53. (Canceled)

54. (New) A composition comprising an effective amount of a combination of ATP-depleting agents at concentrations which deplete the ATP level to 15% or less of normal in cancer cells, wherein the combination comprises 6-methylmercaptapurine riboside (MMPR), 6-Aminonicotinamide (6-AN) and N-(phosphonacetyl)-L-aspartic acid (PALA), and wherein the cancer cells are breast, ovarian or pancreatic cancer cells.

55. (New) A composition comprising an effective amount of a combination of ATP-depleting agents at concentrations which deplete the ATP level to 15% or less of normal in cancer cells, wherein the combination comprises N-(phosphonacetyl)-L-aspartic acid (PALA), alanosine (AL), and 6-methylmercaptapurine riboside (MMPR), and wherein the cancer cells are breast, ovarian or pancreatic cancer cells.

56. (New) The Composition of claim 54, wherein the combination further comprises dehydroepiandrosterone (DHEA) and oxythiamine (OT).

57. (New) The Composition of claim 55, wherein the combination further comprises dehydroepiandrosterone (DHEA) and oxythiamine (OT).

58. (New) The composition of claim 55, wherein the combination further comprises 3-Bromopyruvate (BrPA).

Applicants : MARTIN, et al.  
U.S. Serial No.: 10/518,003  
Filed : December 10, 2004  
Page : 8

59. (New) The composition of claim 55, wherein the combination further comprises Adria, and wherein the amount of Adria administered is one-half the maximum tolerated dosage.
60. (New) The composition of claim 55, wherein the combination further comprises BrPA and Adria, and wherein the amount of Adria administered is one-half the maximum tolerated dosage.
61. (New) The composition of claim 55, wherein the combination further comprises F16.
62. (New) The composition of claim 54, wherein the combination further comprises F16.
63. (New) A method for treating a cancer subject comprising administering to the subject the composition of claim 54, wherein the cancer or breast, ovarian or pancreatic cancer.
64. (New) A method for treating a cancer subject comprising administering to the subject the composition of claim 55, wherein the cancer or breast, ovarian or pancreatic cancer.